

REMARKS

Claims 1 - 12, 15, 16, 18 and 19 are pending in the present application. Claims 13, 14 and 17 are canceled by the present amendment.

On 10 OCT 2002, Examiner Nguyen and Applicants' representative, Attorney John Yankovich (Reg. No. 42,240), conducted a teleconference. Applicants and Attorney Yankovich thank Examiner Nguyen for making time for the teleconference.

In the Office Action, on page 3, the Examiner objected to the drawings for failing to show features of claims 13, 14 and 17. Applicants canceled claims 13, 14 and 17. Applicants respectfully request withdrawal of the objection.

In the Office Action, all of the pending claims were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,067,141A to Yamada et al., either alone, or in view of one or more of the following articles:

EP 0768560A1 to Hashimoto et al.;
US 5,872,611A to Hirata et al.;
US 5,552,611 to Enichen;
US 6,236,445B1 to Foshaar et al.; and
US 5,5574,593A to Wakita et al.

The present application contains three independent claims, namely claims 1, 18 and 19. During the aforementioned teleconference, Attorney Yankovich and Examiner Nguyen discussed the independent claims and agreed on wording for the independent claims as set forth herein. More particularly, they agreed that none of the references describe or suggest a surface alignment structure integrated onto an inner surface of a cell wall, wherein the alignment structure comprises one of a random or pseudorandom two dimensional array of upstanding features. Examiner Nguyen agreed that the independent claims, as now recited, are distinguishable over the art of record. However, Examiner Nguyen reserved the right to

perform an additional search of the prior art, and accordingly, Attorney Yankovich agreed to continue prosecution of the present application by way of an RCE.

Applicants amended claims 1, 18 and 19 to clarify a feature that is neither described nor suggested by the art of record, and amended claim 15 to delete an improper dependence. Applicants submit that the amendment to claims 1, 15, 18 and 19 does not narrow the meaning of any term of the claims, and as such, the doctrine of equivalents should be available for all of the elements of all of the claims.

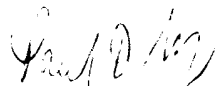
The Office Action Summary indicated that the Office Action should have included a Notice of Draftsperson's Patent Drawing Review (PTO-948), however, Applicants did not receive the PTO-948. Accordingly, Applicants respectfully request that the Examiner include a copy of the PTO-948 with the next correspondence from the Office.

In view of the foregoing, Applicants respectfully submit that all claims presented in this application patentably distinguish over the prior art. Accordingly, Applicants respectfully request favorable consideration and that this application be passed to allowance.

Respectfully submitted,

10/24/02

Date



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IN THE CLAIMS

Please amend the claims below to read as indicated herein.

1. (~~Twice~~ Three times amended) A liquid crystal device comprising:
a first cell wall and a second cell wall enclosing a layer of liquid crystal material;
electrodes for applying an electric field across ~~at least some of the said~~ liquid crystal material; and
a surface alignment structure ~~on the~~ integrated onto an inner surface of ~~at least the said~~ first cell wall providing a desired alignment to molecules of ~~the said~~ liquid crystal material,
wherein ~~the~~ said surface alignment structure comprises one of a random or pseudorandom two dimensional array of upstanding features ~~which that~~ are at least one of shaped and orientated to produce ~~the said~~ desired alignment.

15. (Amended) A method of manufacturing a liquid crystal device ~~in accordance with claim 1~~, comprising securing a first cell wall in accordance with claim 11 to a second cell wall, at least one of the cell walls having an electrode structure thereon, so as to produce a cell having spaced apart cell walls the inner surfaces of which each carry at least one electrode structure; filling the cell with a liquid crystal material, and sealing the cell.

18. (Amended) A liquid crystal device comprising:
a first cell wall and a second cell wall enclosing a layer of liquid crystal material;
electrodes for applying an electric field across at least some of ~~the said~~ liquid crystal material;
a surface alignment structure ~~on the~~ integrated onto an inner surface of ~~at least the said~~ first cell wall providing a desired alignment to ~~the~~ molecules of said liquid crystal ~~molecules~~ material.

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wherein ~~the~~ said surface alignment structure comprises one of a random or pseudorandom two dimensional array of upstanding features ~~which that~~ are at least one of shaped and orientated to produce ~~the said~~ desired alignment, and wherein ~~the~~ said array of upstanding features is not treated to give homeotropic alignment.

19. (Amended) A liquid crystal device comprising:

a first cell wall and a second cell wall enclosing a layer of liquid crystal material; electrodes for applying an electric field across at least some of ~~the said~~ liquid crystal material;

a surface alignment structure ~~on the~~ integrated onto an inner surface of at least ~~the~~ said first cell wall providing a desired alignment to ~~the molecules of said~~ liquid crystal ~~molecules~~ material,

wherein ~~the~~ said surface alignment structure comprises one of a random or pseudorandom two dimensional array of upstanding features ~~which that~~ are at least one of shaped and orientated to produce ~~the said~~ desired alignment, and wherein ~~liquid crystal~~ said molecules, when adjacent ~~the to~~ said cell wall surface between ~~the~~ said features, adopt an alignment which is one of planar and tilted planar.